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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 10/600,593  | 06/23/2003  | Shmuel Winograd      | YOR920030069<br>(00280742AA) | 5507             |
| 30743   | 7590        | 06/16/2006           | EXAMINER                     |                  |
| WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C.<br>11491 SUNSET HILLS ROAD<br>SUITE 340<br>RESTON, VA 20190 |             |                      | RIZK, SAMIR WADIE            |                  |
|   |             |                      | ART UNIT                     | PAPER NUMBER     |
|   |             |                      | 2133                         |                  |

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                                 |  |
|------------------------------|-------------------------------|---------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/600,593 | Applicant(s)<br>WINOGRAD ET AL. |  |
|                              | Examiner<br>Sam Rizk          | Art Unit<br>2133                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-12 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

- Response to the applicant's amendment dated 2/21/2006
- Claim 2 has been cancelled
- Amended claims 1, 3-12 have been submitted examination
- Claim 1 has been rejected
- Claims 3-12 are allowable
- 

### ***Drawings Objections***

1. In view of the applicant amended drawings filed on 2/21/2006; all objections to the drawings are withdrawn.

### ***Specification***

2. In view of the applicant-amended specification filed on 2/21/2006, all objections to the specification are withdrawn.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney C.Lamont Whitman on 5/5/2006.

The application has been amended as follows:

3. Change claim 1, line 3 "words" to "complete data words"
4. Change claim 4, line 6 "words" to "complete data words"

5. Change claim 6, line 6 "words" to "complete data words"
6. Change claim 11, line 7 "words" to "complete data words"

***Response to Arguments***

7. In view of the applicant amended claim 3 and canceled claim 2, all objections to claim 3 has been withdrawn.
8. Applicant's arguments, see pages 10-11, filed 2/21/2006, with respect to amended claims 4, 6 and 11 have been fully considered and are persuasive. The rejection of claims 4, 6 and 11 has been withdrawn.
9. Claim 5 depend from claim 4.
10. Claims 6-10 depends from claim 6.
11. Claim 12 depend from claim 11.

**REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance of claims 3-12:

12. The prior Art of record, in particular Murthy et al. US patent 6694479 and Ghosh et al. US patent no. 6823425 teaches:
  - A computer implemented encoding and correcting method comprising the step of performing exclusive OR operations on **bitwise data words** for error correcting codes with four or more check symbols which can correct as many errors as there are check symbols.

However, the prior art do not teach, suggest, or otherwise render obvious:

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- A computer implemented encoding and correcting method comprising the step of performing **only exclusive OR operations on complete data words** for error correcting codes with **four or more check** symbols which can correct as many errors as there are check symbols as structured in claims 1,4,6 and 11.

13. In regard to claim1, Applicant's arguments, see pages 9-11, filed 2/21/2006 have been fully considered however, after further examination, claim 1 is being rejected under **35 USC § 112** being incomplete for omitting essential elements as outlined in claim 1 rejection.

***Claim Rejections - 35 USC § 112***

14. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are:

- transforming encoding and decoding matrices of  $GF(2^n)$ , the Galois Field of  $2^n$  elements for n greater than one, and
- encoding data and correcting erasure errors using only exclusive OR operations on words.
- The converted code is a (3, 3) code of distance four is used.

### **Conclusions**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

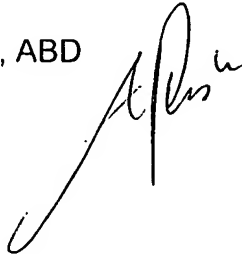
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD

Examiner

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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100